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MONTANA DNRC Conversation

A Newsletter of the Department of Natural Resources and Conservation • Director Bud Clinch
Spring 2003

—BLOCKS ARE BETTER—

Portions of this article are based on "Blocks Are for Berms," by Lisa Schmidt, which appeared in the February 2002 issue of the Farmer-Stockman.

Many track hoe excavators and bulldozers will work in rivers this summer to build gravel dams to direct water to irrigation ditches. But they will leave problems behind. The heavy equipment can break a river's protective armor, causing turbidity, damaging the bed and banks, and leaving them exposed to erosion. Gravel dams can cause environmental damage; permanent rock or concrete dams can cause even more.

There are also the question of danger to floaters and fishermen, and the issue of liability in the event of an injury or death. Dams can create reverse hydraulic waves that might capsize and trap a floater. According to DNRC Hydrologist Tom Hughes, dams are a primary cause of the drowning of recreational floaters.

A Better Diversion Option

These days, there may be a better option. Irrigators can use precast concrete blocks to install temporary berms.

The blocks are Tom's brainchild. Tom is part of the Trust Land Management Division (TLMD), which manages approximately 6,000 miles of navigable rivers and lakes in Montana. TLMD works closely with regulatory agencies and conservation districts (CDs) to review proposed projects that will affect navigable bodies of waters. Cognizant of the problems posed by traditional dams and diversion practices, Tom began searching for "low impact, environmentally friendly tools to use on large rivers, and small, that would maintain their health." He hit upon the idea of the blocks about four years ago.

The precast blocks are designed to be portable, and irrigators can install them quickly in late June or July, after the spring runoff. When the irrigation season is over, the blocks are removed and stored. They can be reused at the same spot for many years, says Tom, and, "if the river moves, you can move the dam with it."

Photo by Tom Hughes

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They're versatile, they're simple, and, because they don't have to withstand the high spring flows, they are relatively small, light, and inexpensive. Permanent irrigation dams constructed with heavy rock, on the other hand, could cost many times more and would require periodic maintenance.

The blocks are placed as a wing dam configuration occupying a portion of the channel width to allow easy fish and recreational floater passage.

Each block has two steel loops recessed into the top, so attaching a chain is quick and simple. A track hoe excavator or a farm tractor with a loader can pick one up and place it in a river without disturbing too much sediment.

Photo by Tom Hughes

Blocks being placed in the Park Branch project

A Helena plant pours the concrete into steel forms that were fashioned by the welding shop at the Helena College of Technology. The steel forms are adjustable and can be used to cast blocks in a wide variety of sizes, shapes, and weights. They can be sized to fit the particular diversion site and stream velocity. The length of the blocks can be controlled to match equipment lift capacities.

An irrigator with a tractor that can lift a ton, for example, could order blocks that are 2 feet high, 6 feet long, and weigh 1,500 lbs. each, said Hughes. A block that size costs $150. A 60-foot wing dam would need 10 blocks, so the diversion would cost $1,500 (not including transportation).

The Real Tests

So far, the blocks have been used to replace about three dozen gravel diversion dams, most on the Gallatin and Shields rivers. A few have been installed on the Jefferson, Madison, Stillwater, and Teton rivers. "They work great," said Roger Nerlin, who diverts water from the Gallatin River near Bozeman.

Nerlin and others on the Nicholls-Burrel Ditch were surprised by how well the blocks funneled water, even during low flows. "We never had any problem with water. The water got short, but we didn't have to mess with the blocks," Nerlin said. "The biggest thing is the minimal disturbance on the bottom of the creek. And those blocks don't move," he said.

The success of the early tests led Hughes to work with DNRC's Conservation Districts Bureau and directly with CDs, who are encouraging use of the blocks through the 223 grants program and the 310 regulatory program.

A new experimental use is currently underway at the Park Branch Water Users Association's intake near Livingston, where the blocks are being placed in a side channel of the Yellowstone River just prior to spring runoff. Periodic dredging of this channel has been required in the past to remove large quantities of bed load sediment. The block dam is designed to physically prevent bed load from entering and building up in the diversion channel. This is an important spawning channel that could benefit if dredging is not required.

Stream Bank Restoration

In addition to their use in diversions, the precast blocks are also starting to be used for stream bank restoration.

Traditional stream bank stabilizing techniques that use heavy rock (riprap, bend way weirs, grade control structures) channelize the streams, causing loss of stream function and habitat. On the other hand, the newer, bioengineered methods that don't use large rock haven't

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had much success, because high spring flows wash out the new plantings before they have sufficient root mass to hold the stream banks.

Using precast concrete blocks may avoid these problems.

According to Tom, this method involves lowering an eroding terrace to a floodplain bench and placing the precast concrete blocks along the bank to allow vegetation to become established. The blocks prevent erosion and protect willows and sod-forming species that are planted on the new floodplain bench. Because the new bench is at a much lower elevation, it is sub-irrigated and will produce a fast-growing willow colony, a solid root system, and a thick sod mass. After two years, the blocks can be moved to another site and used again. The restored bank should be quite resistant to erosion, but deformable over time to accommodate stream adjustments.

Even considering the cost of lowering the terrace, this method is cheaper than using riprap and other restoration methods, and it allows the vegetation to establish faster.

The first restoration project was situated on the Shields River near Wilsall. Blocks weighing 3,600 lbs. each were placed with a track hoe excavator and left for two years. There have been no erosion or other problems, and the vegetative growth "looks like a jungle," said Tom. The cost was $15 per lineal foot. Funding for this project came from a 223 grant and a Future Fisheries grant from the Department of Fish, Wildlife and Parks.

For more information about these blocks, call Tom Hughes at 406-444-5484.

Photo by Tom Hughes

Fresh-cut bank on precast concrete restoration project on the Shields River

——IN THE FACE OF ADVERSITY——

Here's a real life story of determination in the face of adversity.

Craig Nelson, forest management supervisor in the Clearwater Unit Office, was diagnosed with a brain tumor just over a year ago. His doctor recommended surgery to stop the tumor, and the operation was done on May 9, 2002.

Despite his surgery and recovery, Craig was determined to pass the pack test, a strenuous fitness test for firefighting personnel that consists of carrying a 45-lb. rucksack for a distance of 3 miles within 45 minutes. He did so on May 6, 2003, with a time of 43:20.

It was quite an emotional moment at the finish line. Hats off to Craig for his determination and pure guts in passing the pack test less than a year after his surgery!

——ARBOR DAY CELEBRATION——

DNRC [illegible]

Arbor Day was celebrated on April 25, when Governor Judy Martz presented the official state Arbor Day proclamation and planted a ponderosa pine tree on the grounds of the Capitol Building. Children and teachers from Helena's Jefferson and Broadwater Elementary Schools were among those on hand for the event.

The Montana Arbor Day celebration was a milestone for the National Tree Trust, an organization that promotes healthy communities by providing resources for people to grow and care for urban and community forests. The ponderosa pine, donated by the Montana Nursery and Landscape Association, is one of 50 trees planted in each state capital and commemorates the trust's 10 millionth tree planted since its beginning in 1990. A marker near the tree will indicate its significance.

DNRC's Forestry Division (FD) Administrator Bob Harrington presented a Tree City USA award to Helena city officials. Additionally, the Grand Prize for the Montana Arbor Day Poster Contest was awarded. The winning Montana poster, forwarded to the National Arbor Day Foundation in Nebraska, was selected as third runner-up nationally.

The idea for Arbor Day originated in Nebraska, where one of the early pioneers promoted the need for tree planting across the state's treeless plains. The first Arbor Day was observed in 1872, and it is estimated that more than a million trees were planted on that day. The idea of a tree-planting holiday caught on, and today there are Arbor Day observances in every state and in many countries around the world. By a proclamation of the 1989 Legislature, the last Friday in April is officially designated as Arbor Day in Montana.

FD's Urban and Community Forestry Program is the main proponent of Arbor Day and Tree City USA activities in Montana. The program, in cooperation with the USDA Forest Service, offers technical, financial, and volunteer assistance to cities and towns statewide through Urban and Community Forestry Coordinator Kelley Gundale and Community Foresters Jeff Roe and Mark Lennon (stationed in Miles City and Polson, respectively). Gundale organized this year's Arbor Day activities.

——2003 LEGISLATION——

Here is a summary of legislation passed during the 2003 session that affects DNRC.

Bill	Subject	Importance to DNRC
HB 2	General Appropriations Act	Appropriates money to the state agencies for the biennium ending June 30, 2005. Signed by the Governor with an effective date of July 1, 2003.
HB 6	Renewable Resource Grants	Appropriates $4 million for the biennium for the Renewable Resource Grant and Loan Program, including funds for emergency projects, project planning grants, and 44 prioritized grant projects. Signed by the Governor with an effective date of July 1, 2003.
HB 7	Reclamation and Development Grants	Appropriates $2.4 million for the biennium for 14 prioritized grant projects under the Reclamation and Development Grants Program. Signed by the Governor with an effective date of July 1, 2003.
HB 8	Renewable Resource Bonds and Loans	Appropriates funds for the bond reserve and $10.7 million for the biennium for 4 new loans and 5 reauthorized loans under the Renewable Resource Grant and Loan Program. Signed by the Governor with an effective date of July 1, 2003.
HB 13	State Employee Pay Plan	Increases salary by $0.25 per hour in January 2005; increases the state contribution to the employee group benefits program. Signed by the Governor with an effective date of July 1, 2003.
HB 46	Water Revolving Fund Loan Programs	Increases bonding authority from $30 million to $40 million for the state share of the Water Pollution Control Program and from $20 million to $30 million for the state share of the Drinking Water Program. Signed by the Governor with an effective date of July 1, 2003.
HB 83	Well Log Filing	Changes well log filling requirements. Well logs are to be filed directly with the Montana Bureau of Mines and Geology. Allows for development of electronic filing system. Signed by the Governor with an effective date of July 1, 2003.
HB 223	State Land Sale Proceeds for Land Purchases	Creates the state land bank fund. Allows the Board of Land Commissioners to acquire and dispose of lands in order to increase the revenue-generating capacity of the state trust land, diversify the holdings, reduce the number of isolated parcels, decrease management conflicts, and increase legal accessibility and public access to state lands. Signed by the Governor with an immediate effective date.

Legislation *continued on page 6*

Legislation continued from page 5

HB 238	Short-Term Water Right Lease Requirements for Local Governments	Allows local governments to lease water rights for short-term road construction and dust abatement so long as they post notice at the point of diversion 24 hours prior to diverting the water. Signed by the Governor with an immediate effective date.
HB 326	Upper Clark Fork Water Leasing	Allows leases of water rights for instream uses in the Upper Clark Fork River Basin (Basin 76G) to be extended up to 30 years, consistent with other instream leasing programs. Signed by the Governor with an immediate effective date.
HB 388	Withdrawal from Irrigation District Assessments	Allows tracts less than 3 acres that are within the boundaries of an irrigation district, but are not being served by the district, to be withdrawn from the district upon payment of a severance fee. Signed by the Governor with an immediate effective date.
HB 676	Clarification of Project under Natural Streambed and Land Preservation Act	Makes clear under the 310 law that a "project" is any activity that takes place in a perennially flowing stream and its bed and immediate banks. Signed by the Governor with an immediate effective date.
HB 677	Justice Court Jurisdiction over Natural Streambed and Land Preservation Act	Clarifies the enforcement powers of conservation districts and establishes the jurisdictional limits of justice courts in enforcement actions under the 310 law. Signed by the Govetnor with an immediate effective date.
HB 678	Declaratory Rulings for Natural Streambed and Land Preservation Act	Gives conservation districts a process through which the districts can define their jurisdiction over 310 projects. Signed by the Governor with an immediate effective date.
HB 683	Requirements for a Change in a Water Appropriation Right	Allows local governments to install a replacement or a required redundant well on a municipal system without having to obtain authorization from DNRC. Signed by the Governor with an immediate effective date.
HB 689	Lobbying	Provides that a "lobbyist" does not include an individual who receives payments from one or more persons that total less than $2,150. Signed by the Governor with an immediate effective date.
HB 720	Water Use Permits and Changes in Appropriation Rights	Requires DNRC to adopt rules on (1) what constitutes a correct and complete application for a new water right or to change an existing water right, and on (2) what constitutes a correct and complete objection to such an application. Requires DNRC to make a determination within 180 days on whether such an application is correct and complete. Requires an objector to provide certain information if the objection asserts adverse effects to fish, wildlife, or recreation. Signed by the Governor with an effective date of October 1, 2003.

Legislation continued on page 7

Legislation *continued from page 6*

HJ 4	Water Practices Management Review	Requests that an interim legislative committee evaluate the efficiency of water distribution systems; measures that promote the efficient use of water; return flow impacts; water banking; water storage policy and options for improving supply and distribution of water in Montana, including development of offstream storage; and the effects of excessive fuel on timbered lands on available water. Filed with the Secretary of State.
HJ 35	State Share of Water under Yellowstone River Compact	Requests that an interim legislative committee investigate whether Montana is receiving its lawful share of water from interstate tributaries pursuant to the Yellowstone River Compact and, if not, to make recommendations regarding how to ensure that Montana receives its lawful share. Filed with the Secretary of State.
HJ 40	Effect of Ponds on Water Use	Requests that an interim legislative committee evaluate whether private ponds for fish, wildlife, recreational, wetland, or aesthetic uses are beneficial uses; evaluate criteria for or limits on amounts of water; address the proliferation of private ponds; examine the definition of "non-consumptive use"; and evaluate any other issues related to the use of water for private ponds for fish, wildlife, recreational, wetland, aesthetic, or gravel-mining uses. Filed with the Secretary of State.
SB 5	Bond Issuance Authority for Renewable Resource Grants and Loans	Increases bond issuance authority for renewable resource grants and loans from $20 million to $30 million. Signed by the Governor with an effective date of July 1, 2003.
SB 14	Suspension of Adjudication during Negotiation of Reserved Water Rights	Extends life of the Reserved Water Rights Compact Commission to July 1, 2009. Signed by the Governor with an effective date of July 1, 2003.
SB 36	Workers Compensation Coverage for Water Commissioners	Requires that workers compensation insurance coverage for water commissioners be paid through fees collected from water users. Clarifies the employment status of water commissioners. Signed by the Governor with an immediate effective date.
SB 78	Definition of "Final Agency Action" under MEPA	Defines that, for an action taken under Title 77 by the Board of Land Commissioners or DNRC, "final agency action" means the date that the board or DNRC issues a final environmental review document or the date that the board approves the action, whichever is later, is subject to the provisions of MEPA. Signed by the Governor with an immediate effective date.
SB 84	Board of Oil and Gas Conservation Report to Revenue Oversight Committee	Eliminates a required report rendered obsolete by improvements in website data availability and the ability to generate statistical reports on demand. Signed by the Governor with an effective date of October 1, 2003.

Legislation *continued on page 8*

Legislation *continued from page 7*

SB 88	Codification of Coal Bed Methane Law	Moves the statutes establishing conditions for development of coal bed methane production wells from Title 85, Water Use, to Title 82, Minerals, Oil and Gas. Signed by the Governor with an effective date of October 1, 2003.
SB 130	Recreational Use of Trust Land	Allows DNRC to enter into an agreement with the Department of Fish, Wildlife and Parks to allow access to state lands through the use of a conservation license. Signed by the Governor with an effective date of March 1, 2004.
SB 135	Mineral Production Rights for Funding Schools	Clarifies how mineral revenues are to be financially distributed to the various accounts. Signed by the Governor with an immediate effective date.
SB 137	Commercial Leasing of State Trust Land	Provides new statutory and rulemaking authority for the leasing of trust lands for commercial purposes. Signed by the Governor with an effective date of July 1, 2003.
SB 150	Local Government Finance	Generally revises local government and state government laws concerning bond refunding. Signed by the Governor with an effective date of July 1, 2003.
SB 194	Interim Water Agreement with Salish and Kootenai Tribes	Empowers the Reserved Water Rights Compact Commission to negotiate an interim agreement with the Salish and Kootenai Tribes pending quantification of the federal Indian reserved water rights on the Flathead Indian Reservation. Signed by the Governor with an immediate effective date.
SB 206	Timber Hazard Reduction	Removes the legal requirement that "relevant site photographs" be provided with the submittal of a signed affidavit for timber slash hazard reduction agreements. Signed by the Governor with an immediate effective date.
SB 244	Day-Use Permit for Certain Persons on State-Owned Reservoirs	Exempts holder of contract for water from a state-owned reservoir, who pays operation and maintenance fees, from day-use recreation fees to access the reservoir. Signed by the Governor with an immediate effective date.
SB 381	Dispute under Natural Streambed and Land Preservation Act	Gives an applicant the choice of arbitration or judicial review of a permit decision under the 310 law. Signed by the Governor with an effective date of October 1, 2003.
SB 446	Flathead Basin Commission	Transfers the Flathead Basin Commission to DNRC for administrative purposes through June 30, 2005. Signed by the Governor with an effective date of July 1, 2003.

Legislation *continued on page 9*

Legislation *continued from page 8*

SJ 19	Minimum Lake Level for Fort Peck	Urges the Montana congressional delegation to introduce legislation in Congress to set a minimum lake level in Fort Peck Reservoir of 2,225 feet above mean sea level, except when necessary to protect fish, wildlife, and their habitat in the river reach between Fort Peck Dam and Lake Sakakawea. Filed with the Secretary of State.

—POCKET PC SOLUTIONS FOR AIRCRAFT MAINTENANCE—

A new computer system is being developed and implemented to simplify and reduce the amount of time it takes to keep detailed records related to DNRC aircraft, including the tracking of parts. The new system is largely the result of efforts of aircraft maintenance personnel, assisted by Information Technology Bureau staff. Its success demonstrates that some problems can be innovatively addressed in-house, and sometimes low-cost solutions can be found.

Ed Martin [illegible]

DNRC's Forestry Division operates a fleet of five helicopters and three single engine aircraft. As with most organizations, the Air Operations Section has a small staff, a growing workload, and little hope of hiring additional personnel. In an effort to identify those areas that are adversely affecting workload, staff initiated an informal but detailed internal review of the Aviation Management Program, from the simplest of tasks all the way to style of management.

Aviation Section personnel are very mobile, whether they are moving around the Helena hangar or traveling across the state. Because of this, they usually ended up jotting stuff down and then rewriting it when they had a chance to sit down at a computer. Managing the inventory of aircraft parts was one of the biggest problems and the most time-consuming task. The existing procedure and computer application were very cumbersome and prone to accidental errors. Another problem was the flow of information, particularly maintenance information. A better means of distributing safety, technical, and planning information was needed.

To Aircraft Inspector Ed Martin, aircraft maintenance tasks were of great interest because of the sheer volume of repetitive paperwork required. Updating or replacing the paperwork forms and procedures, as well as replacing the antiquated computer system, offered the best opportunity to improve productivity.

After identifying this problem, with the support and encouragement of Section Supervisor Chuck Brenton, Martin began looking for an inexpensive solution that could be developed and implemented in-house. Because of its portability and the possibilities it offers, the personal data assistant (PDA) seemed promising. Research led to the selection of the top selling Compaq IPAQ models 3870 and 3970 for the handheld PDA.

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Pocket PC (continued from page 9)

The basic pocket PC comes with built-in applications such as Microsoft Word and Excel, and it integrates nicely with DNRC desktop computers. Hundreds of other programs are available, including flight-planning calculators, moving maps that connect to a GPS unit, and wildland fire behavior calculations. It is also possible to print e-mail, Word, and Excel documents via the infrared (IR) port to most IR-equipped printers. (Most Hewlett Packard laser printers have this feature.) Martin noted that it's not as feature-rich as printing from a desktop computer, but it works quite well.

The key to making the system work is the data synchronization between the PDA and the desktop. The pocket PCs came with a Microsoft program called Activesync. When the PDA is connected to the host computer, Activesync automatically checks for changes made to either the handheld copy or the desktop copy and then updates both. Multiple PDAs can be synchronized to the same database.

Martin selected a database program to handle the database application. It's based on Microsoft's Pocket Access program, and it integrates with Microsoft Access on DNRC's desktop computers and network. A bar-code-tracking system for the aircraft parts inventory has been implemented with this application. The bar code provides for the tracking of all parts from requisition to consumption. Upon receipt of a part, the bar code tag is printed directly from the PDA to a Dymo LabelWriter printer; no PC or network connection is required. In short, the whole process of requisitioning, ordering, and tracking the parts is handled right on the handheld. The system works so well that the desktop Access files are being used only for data synchronization and backup.

Ed and his assistants continued to develop the system, next implementing a work order system that is integrated with the new parts system. The system allows the aviation technician to perform all record-keeping tasks directly on the handheld PDA. As the technician scans the part, the bar code system automatically logs the part onto the work order, adjusts the inventory, prompts to reorder, and updates the time/life tracking application. A key feature is that the technician has the full system onboard to allow a work order to be initiated, completed, and printed in the field.

Martin continues to be enthusiastic about PDAs. Here are some of the additional functions that he has pursued.

- *I've created aircraft weight and balance forms in Excel for the Bell UH-1 Super Huey and the Bell 206 Jet Ranger.*
- *I connect my PDA to the Internet via my cell phone, and, although it is quite slow in our area, it does have its use.*
- *I could order parts or check FAA bulletins.*
- *Since I can now create a purchase order (PO) directly on the PDA, I am working on being able to fax the PO from the PDA through the cell phone.*
- *I connect the PDA to my GPS unit and use it as a moving map. Given coordinates from the aircrew, I can navigate directly to an aircraft in the field.*
- *I can load PDF versions of manuals onto the PDA. I have the* Army Maintenance Test Flight Manual *installed; although the charts aren't readable, the instructions are fine. Adobe is working on being able to print the manual. When that happens, we will be able to look up the information we need and then print that section, with no need to carry a large set of manuals around.*

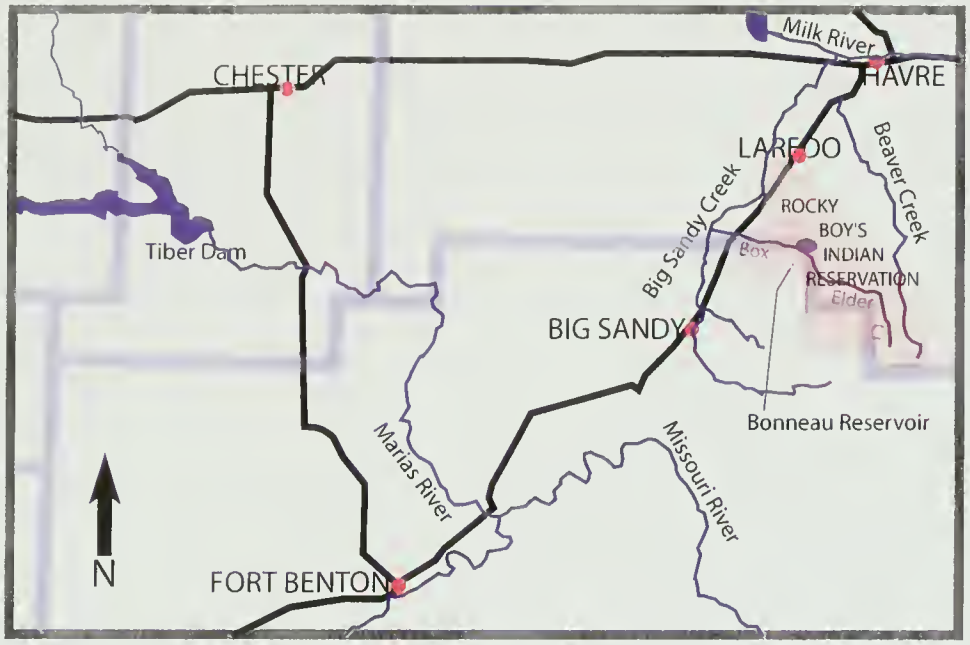
Fire and Aviation Management Bureau Chief Tim Murphy recognizes the commitment of DNRC's air operations staff and the progress they have made concerning PDA-assisted aircraft maintenance. Murphy has encouraged sharing their information and experiences with other local, state, and federal fire and aviation management programs.

Other applications within all kinds of DNRC programs seem likely; DNRC has probably just scratched the surface of what is possible with all these new electronic devices.

For further information about the use of PDAs in aircraft maintenance or to discuss their possible applicability to other DNRC functions, call Ed Martin at 406-444-0789.

——ROCKY BOY'S RECEIVES FUNDS——

Millions of federal dollars have recently been released for water and economic development on the Rocky Boy's Indian Reservation as the result of a water compact that was concluded six years ago. The Reserved Water Rights Compact Commission and the Chippewa Cree Tribes finished negotiating the compact in 1997, and the federal funds were approved in 1999. The funds have now been transferred to the Tribes, who are pursuing the enlargement of Bonneau Reservoir and three other reservoirs.



The reservation is centered around the Bears Paw Mountains in north-central Montana extending out onto the plains to the west and to the north towards Big Sandy Creek and the Milk River. In 1916, Congress established the reservation for the Chippewa and Cree Tribes from portions of the former Fort Assiniboine. The reservation is now home to over 3,000 Tribal members. Population growth is greater than 3 percent per year, and unemployment runs at an estimated 70 percent. Land use is primarily hay growing and cattle grazing. Irrigation is heavily dependent on timely spring runoff and summer rainstorms, and the reservation lacks an adequate drinking water system.

Negotiations for the quantification of the Tribal reserved water rights began around 1993. The negotiators included representatives of the State of Montana, the Tribes of Rocky Boy's, and the U. S. Department of the Interior. Among the main concerns of the negotiators were safe drinking water and a reliable domestic water supply. Water for small irrigation projects and a large hay farm near the Laredo railroad siding on Big Sandy Creek were also important issues, along with the right to develop a resort area in the headwaters of Beaver Creek.

The final water rights settlement addressed both the concerns of the Tribes and those of non-Indians living downstream of the reservation. After negotiations were concluded in 1997, the compact was passed by the Montana Legislature in April of that year and codified at MCA 85-20-601. Among its provisions is the allocation of 10,000 acre-feet per year (AFY) to the Tribes from water arising on the reservation.

The compact was submitted to Congress in 1998 and approved on December 9, 1999, as Public Law (P.L.) 106-163. The legislation authorizes a total of $45 million for economic development, a new water supply system, and administration.

Some of the federal expenditures authorized by P.L. 106-163 are being used to enlarge the "high hazard" Bonneau Dam and correct its deficiencies. Bonneau Reservoir, situated on Box Elder Creek, is used for both recreation and irrigation. Its storage capacity will be nearly quadrupled, from 956 acre-feet to 3,800 acre-feet, and the number of irrigated acres will be increased from 700 acres of alfalfa to more than 1,250. After the dam is improved and enlarged, 2 cubic feet per second of water will be bypassed during the months of July and August to prevent Big Sandy Creek from going dry. Big Sandy Creek is a source of water for livestock.

Funding for the improvement of three other projects was also appropriated. These projects are the East Fork Upper Beaver Creek Dam and Reservoir, Brown's Dam and Reservoir, and the Towe Ponds enlargement.

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MONTANA DNRConversation

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Montana Department of Natural Resources and Conservation
1625 Eleventh Avenue
PO Box 201601
Helena, MT 59620-1601

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The Tribes also requested funding for a new potable water system. P.L. 106-163 authorized federal funds for a future water supply system for the reservation, and the federal authorization includes 10,000 AFY from water stored in Tiber Reservoir to the west. This eventually expanded into the proposed North-Central Montana Regional Water System, which will provide good quality drinking water to people both on and off the reservation. (See related story in the Winter 2002 issue of *Montana DNRConversation.*)

Following passage of the state and federal laws, the compact was given to the Montana Water Court. The court heard objections and issued a final decree on May 22, 2002. No appeals were filed, and the compact became final 60 days later.

The last step before the recent release of the federal funds was passage by the Tribal Council of a resolution dismissing all claims against the United States Government, as specified in the federal legislation.

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